What Is Claimed Is:

1. A method that prevents loops from occurring when spanning tree configuration messages are lost while executing a spanning tree protocol across bridges in a network, comprising:

executing the spanning tree protocol on a bridge, wherein the spanning tree protocol configures each port coupled to the bridge into either a forwarding state, in which messages are forwarded to and from the port, or a backup state, in which messages are not forwarded to or from the port;

monitoring ports coupled to the bridge to determine when messages are lost by the ports;

if one or more messages are lost on a port, refraining from forwarding messages to or from the port until no messages are lost by the port for an amount of time.

2. The method of claim 1, wherein the amount of time is greater than a time interval provided by bridges between consecutive spanning tree configuration messages.

3. The method of claim 1, wherein monitoring ports coupled to the bridge involves communicating with hardware associated with the ports to determine if messages have been lost by the ports.

4. The method of claim 1, wherein executing the spanning tree protocol involves placing ports coupled to the bridge into either the forwarding state or the backup state in a manner that ensures that messages are forwarded

without cycling across a spanning tree that couples together bridges in the network.

5. The method of claim 4, wherein executing the spanning tree protocol involves:

electing a single bridge among all bridges on all links on the network to be a root bridge;

calculating the distance of the shortest path from each node to the root bridge;

electing a designated bridge for each link from all bridges on the link, wherein the designated bridge is closest to the root bridge and will forward packets from the link to the root bridge;

choosing a root port for each bridge that provides the best path to the root bridge;

selecting ports on each bridge to be included in the spanning tree, wherein the selected ports include the root port and any ports coupled to links upon which the bridge serves as the designated bridge;

placing selected ports into the forwarding state; and

placing all other ports into the backup state.

6. The method of claim 1, wherein the spanning tree protocol generally operates in accordance with Institute of Electrical and Electronics Engineers (IEEE) standard 802.1D.

7. The method of claim 1, wherein the links are Local Area Networks (LANs).

8. A computer-readable storage medium storing instructions that when executed by a computer cause the computer to perform a method that prevents loops from occurring when spanning tree configuration messages are lost while executing a spanning tree protocol across bridges in a network, the method comprising:

executing the spanning tree protocol on a bridge, wherein the spanning tree protocol configures each port coupled to the bridge into either a forwarding state, in which messages are forwarded to and from the port, or a backup state, in which messages are not forwarded to or from the port;

monitoring ports coupled to the bridge to determine when messages are lost by the ports;

if one or more messages are lost on a port, refraining from forwarding messages to or from the port until no messages are lost by the port for an amount of time.

9. The computer-readable storage medium of claim 8, wherein the amount of time is greater than a time interval provided by bridges between consecutive spanning tree configuration messages.

10. The computer-readable storage medium of claim 8, wherein monitoring ports coupled to the bridge involves communicating with hardware associated with the ports to determine if messages have been lost by the ports.

11. The computer-readable storage medium of claim 8, wherein executing the spanning tree protocol involves placing ports coupled to the bridge into either the forwarding state or the backup state in a manner that ensures that

messages are forwarded without cycling across a spanning tree that couples together bridges in the network.

12. The computer-readable storage medium of claim 11, wherein executing the spanning tree protocol involves:

electing a single bridge among all bridges on all links on the network to be a root bridge;

calculating the distance of the shortest path from each node to the root bridge;

electing a designated bridge for each link from all bridges on the link, wherein the designated bridge is closest to the root bridge and will forward packets from the link to the root bridge;

choosing a root port for each bridge that provides the best path to the root bridge;

selecting ports on each bridge to be included in the spanning tree, wherein the selected ports include the root port and any ports coupled to links upon which the bridge serves as the designated bridge;

placing selected ports into the forwarding state; and

placing all other ports into the backup state.

13. The computer-readable storage medium of claim 8, wherein the spanning tree protocol generally operates in accordance with Institute of Electrical and Electronics Engineers (IEEE) standard 802.1D.

14. The computer-readable storage medium of claim 8, wherein the links are Local Area Networks (LANs).

15. An apparatus that prevents loops from occurring when spanning tree configuration messages are lost while executing a spanning tree protocol across bridges in a network, comprising:

a spanning tree mechanism configured to execute the spanning tree protocol on a bridge, wherein the spanning tree protocol configures each port coupled to the bridge into either a forwarding state, in which messages are forwarded to and from the port, or a backup state, in which messages are not forwarded to or from the port; and

a monitoring mechanism configured to monitor ports coupled to the bridge to determine when messages are lost by the ports;

wherein if one or more messages are lost on a port, the spanning tree mechanism is configured refrain from forwarding messages to or from the port until no messages are lost by the port for an amount of time.

16. The apparatus of claim 15, wherein the amount of time is greater than a time interval provided by bridges between consecutive spanning tree configuration messages.

17. The apparatus of claim 15, wherein the monitoring mechanism is configured to communicate with hardware associated with the ports to determine if messages have been lost by the ports.

18. The apparatus of claim 15, wherein the spanning tree mechanism is configured to place ports coupled to the bridge into either the forwarding state or the backup state in a manner that ensures that messages are forwarded without cycling across a spanning tree that couples together bridges in the network.

19. The apparatus of claim 18, wherein the spanning tree mechanism is configured to:

elect a single bridge among all bridges on all links on the network to be a root bridge;

calculate the distance of the shortest path from each node to the root bridge;

elect a designated bridge for each link from all bridges on the link, wherein the designated bridge is closest to the root bridge and will forward packets from the link to the root bridge;

choose a root port for each bridge that provides the best path to the root bridge;

select ports on each bridge to be included in the spanning tree, wherein the selected ports include the root port and any ports coupled to links upon which the bridge serves as the designated bridge;

place selected ports into the forwarding state; and to

place all other ports into the backup state.

20. The apparatus of claim 15, wherein the spanning tree mechanism generally operates in accordance with Institute of Electrical and Electronics Engineers (IEEE) standard 802.1D.

21. The apparatus of claim 15, wherein the links are Local Area Networks (LANs).